



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/512,088	02/24/2000	Koichi Horikawa	Q57985	5415

7590 06/27/2003

J. Frank Osha  
Sughrue Mion Zinn MacPeak & Seas PLLC  
2100 Pennsylvania Avenue N. W.  
Washington, DC 20037-3212

EXAMINER

WON, YOUNG N

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/512,088	HORIKAWA, KOICHI
	Examiner Young N Won	Art Unit 2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 April 2003.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-5 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. Amended claims 1-4 and claim 5 have been examined.
2. Objections to the drawings have been withdrawn.
3. Rejection of claim 3 under 35 USC 112, second paragraph, has been withdrawn.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 5828844 A) in view of Cox et al. (US 6189041 B1).

As per claim 1, Civanlar teaches of a method for transferring MPOA packets in an ATM network, comprising determining by an MPOA server (see col.3, lines 18-22) which has received an address resolution request packet from an MPOA client (see Fig.1, #2; and col.3, lines 22-25) whether or not said address resolution request packet

is to be forwarded to another MPOA server or another MPOA client based on layer 3 packet filter information (see col.2, line 62 to col.3, line 5). Civanlar does not explicitly teach that the packets, clients and servers are MPOA packets, MPOA clients, or MPOA servers, respectively, but such limitations are merely labels or terms imposed by the applicant and are not usual standard in the art. Civanlar does teach about NHRP (see col.3, line 65 to col.4, line 18) and MPOA (see col.4, line 66). Cox teaches that NHRP is "presently part of the specification for MPOA" (see col.3, lines 64-67).

As per claim 2, Civanlar teaches all the limitations except wherein the method comprises: transmitting by said MPOA client a source layer 3 address of the data packet that is to be a short cut, said source layer 3 address being added as an extension to the MPOA address resolution request packet; and determining by said MPOA server whether or not said MPOA address resolution request packet is to be forwarded to the other MPOA server or the other MPOA client based on said source layer 3 address placed in the extension and a destination layer 3 address in the MPOA address resolution request packet received from said MPOA client, after verifying the layer 3 packet filter information. Cox teaches of transmitting by said MPOA client a source layer 3 address of the data packet that is to be a short cut, said source layer 3 address being added as an extension to the MPOA address resolution request packet (see Fig.5; col.5, lines 8-10; and col.5, line 63-col.6, line18); and determining by said MPOA server whether or not said MPOA address resolution request packet is to be forwarded to the other MPOA server or the other MPOA client based on said source layer 3 address placed in the extension and a destination layer 3 address in the MPOA

address resolution request packet received from said MPOA client, after verifying the layer 3 packet filter information (see col.2, lines 40-54; col.7, lines 37-52; and col.8, lines 37-40). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Cox within the system of Civanlar, by implementing an extension as the mechanism to establish a shortcut within the packet transfer over ATM system, because "extension within an NHRP Resolution Request" can be forwarded by NHS (see Cox: col.6, lines 13-14) and NHS is a known prior art in the NHRP model for mapping IP addresses to create a cut-through path within not only it's own LIS , but it's neighboring NHS's which supports other LIS's (see Civanlar: col.4, lines 5-41).

As per claim 3, although Civanlar teaches the method comprising: said MPOA client notifying a source layer 3 address processor by a client MPOA packet processor in said MPOA client of a MPOA address resolution request operation and a source layer 3 address information (see col.3, lines 1-5); and said MPOA client transmitting to an MPOA server by a client MPOA packet-transmitting portion the MPOA address resolution request packet at said client MPOA packet processor (see col.3, lines 11-18). Civanlar does not teach that the MPOA packet extension was added (see claim 2 rejection). Also, Civanlar does not further teach said MPOA client judging by the source layer 3 address processor about whether or not an outer instruction of said MPOA address resolution request operation directs including the source layer 3 address in the MPOA packet extension. Cox teaches of said MPOA client judging by the source layer 3 address processor about whether or not an outer instruction of said MPOA address

resolution request operation directs including the source layer 3 address in the MPOA packet extension (see col.6, lines 6-10; col.9, line 65-col.10, line 8; and col.10, lines 26-27). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Cox within the system of Civanlar, by implementing a method of creating an extension within the packet transfer over ATM system, because Cox teaches that an extension can be employed for establishing shortcuts or cut-through paths.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 5828844 A) and Cox et al. (US 6189041 B1) further in view of Huey et al. (US 5467349 A).

As per claims 4 and 5, Civanlar further teaches the method comprising: a MPOA packet receiving portion of said MPOA server receiving the MPOA address resolution request packet from said MPOA client (see col.3, lines 11-18); a MPOA packet processor of said MPOA server checking about whether or not the source layer 3 address is included in the received MPOA address resolution request packet (see col.2, line 62 to col.3, line 5); and when said source layer 3 address is included, said server MPOA packet processor obtaining the source layer 3 address and a destination layer 3 address (see claim 2 rejection above); said server MPOA packet processor judging by whether or not to permit passage of the filter (see col.3, lines 22-38); and directing the execution of error processing, wherein when passage of said filter is not permitted,

directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client (see claim 1 rejection above). Civanlar and Cox does not teach of a layer 3 filter retrieving portion retrieving a layer 3 filter information using said source layer 3 address and said destination layer 3 address as the key; and error processing, wherein when passage of said filter is not permitted, directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client, and wherein the error processing is a process for transmitting the MPOA packet which indicates that the address resolution has failed towards the MPOA client. Huey teaches of a layer 3 filter retrieving portion retrieving a layer 3 filter information using said source layer 3 address and said destination layer 3 address as the key (see abstract; Fig.5; Fig.8; and col.5, lines 4-35); and error processing, wherein when passage of said filter is not permitted, directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client (see col.4, lines 13-21), and wherein the error processing is a process for transmitting the MPOA packet which indicates that the address resolution has failed towards the MPOA client (see Fig.9b, #132, and col.8, lines 25-29). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Huey within the system of Civanlar and Cox, by implementing a filtering means and an error processing method within the packet transfer over ATM system, because Civanlar teaches that any special filters may be employed (see Civanlar: col.6, lines 25-29), and because error processing increases

elimination of idle data packets thereby reducing delay and increasing throughput and processing time. Civanlar teaches of the desire to reduce delay and increase throughput (see Civanlar: col.3, lines 61-64).

***Response to Remarks***

6. In response to the argument regarding claim 1, Civanlar clearly teach, "determining by a MPOA server...about whether or not said address resolution request packet is to be forwarded to other MPOA...based on layer 3 packet filter information" (see reference location above). Whether or not the packet is to be forwarded or whether the destination is a client or a host is inherent. Civanlar teaches that each device along the path determines the next hop by performing a layer 3 processing to the destination. Therefore, by inherency, the destination IP address could be a server, a client, another router, or any device with an IP address.
  
7. In response to the argument that MPOA are "merely labels...", it is added that, MPOA server, MPOA client, MPOA device, ect., are merely labels. Whether the server is called a server, Jack's server, or MPOA server, does not functionally change the functionality of the server. Civanlar clearly teaches the functionality of the applicant's claimed invention. Cox also teaches that NHRP is "presently part of the specification for MPOA" (see col.3, lines 64-67).

8. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
  
9. Applicant's arguments with respect to claims 4 and 5, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

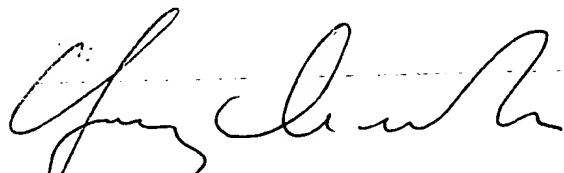
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Young N Won whose telephone number is 703-605-4241. The examiner can normally be reached on M-Th: 8AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Young N Won

  
June 25, 2003

  
HOSAIN T. ALAM  
PRIMARY EXAMINER